



Standard Treatment Workflow (STW) for the Management of **ADULT ABDOMINAL TUBERCULOSIS** ICD-10-A18.3

WHEN TO SUSPECT

Any organ in abdominal cavity, including gut lumen & peritoneum may be affected

PERITONEAL	INTESTINAL	ESOPHAGEAL	GASTRO-DUODENAL	PERIANAL	PANCREATIC	HEPATO-BILIARY
Abdominal distensionPain abdomenFever	 Recurrent intestinal colic Partial/incomplete intestinal obstruction Chronic diarrhoea Weight loss Palpable mass abdomen Lower gastrointestinal bleeding 	DysphagiaOdynophagiaHematemesisConstitutional symptoms	 Gastric outlet obstruction Gastrointestinal bleed 	 Simple/ Complex peri-anal fistula Persistent discharge Fistulae which recur after multiple surgeries 	 Abdominal pain Obstructive jaundice Dilated pancreatic or bile duct with (peri)-pancreatic mass or cyst Constitutional symptoms 	FUOHepatomegalyJaundiceElevated ALPSOLHepatic abscess

EVALUATION FOR SUSPECTED ABDOMINAL TUBERCULOSIS

Pancreatic Peritoneal TB Perianal TB Gastrointestinal TB Hepatobiliary TB Imaging: **Ascitic tap** Malignancy more Cytology (lymphocyte CT or MR enterography (preferred): bowel Uncommon important concern predominance, absence thickening, strictures, necrotic LN · Imaging: MRI Needs imaging/ > CT chest may also be done of malignant cells) pelvis/Endoanal **Endoscopic** Endoscopic biopsies: UGIE for SAAG: <1.1 gram/dL ultrasound/EUS ultrasound guided Culture, NAAT esophageal/gastroduodenal/ileo-colonoscopy Tissue acquisition tissue acquisition for intestinal TB is mandatory to acquire tissue Ascitic ADA: >39 U/L for histology & Refer to higher Histology: Caseating granuloma specific; **Imaging** microbiology confluent granuloma & ulcers lined by centre Ultrasound: Ascites, histiocytes suggestive lymph nodes, bowel Microbiology: Culture, NAAT thickening, for tissue • Barium studies: if endoscopy/CT unavailable acquisition for cytology & microbiology If diagnosis unclear If diagnosis unclear Refer for further evaluation (differentiating Crohn's disease is challenging) **Refer for Laparoscopy** Trial of Anti tubercular therapy with careful follow-up

HIV & blood sugar test should be done in all suspected patients as per NTEP guidelines

FOLLOW UP

Definitive Abdominal TB

(Microbiological positive, Caseating granulomas)

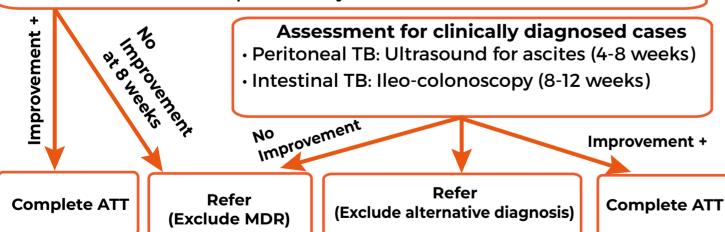
Clinically Diagnosed Abdominal TB

(Consistent clinical/radiological picture, Elevated ascitic ADA, granuloma on histology, exclusion of differential diagnosis)

START ATT (2HRZE, 4HRE)

Clinical Assessment (4 & 8 weeks)

- No fever/pain, disappearance of abdominal distension, weight gain
- Assess ATT induced hepatotoxicity with serial LFTs



- End of therapy: Document mucosal healing in colonic & upper GITB
- Imaging in small bowel disease to document healing

TREATMENT:

- Start treatment & follow-up as per NTEP guidelines
- 1st line treatment for adults & children with abdominal TB: 2HRZE/4HRE
- Extend duration of treatment in cases of inadequate response
- Refer for surgical management for complications [intestinal obstruction (due to strictures), perforation]. Consider endoscopic dilatation for treatment for accessible strictures
- Refer for biliary drainage in case of Jaundice due to biliary obstruction (hepatobiliary obstruction/pancreatic TB)

ABBREVIATIONS

ADA: Adenosine Deaminase **ALP:** Alkaline phosphatase ATT: Anti-Tubercular treatment HRZE: Isoniazid; Rifampicin; **CT**: Computed Tomography **EUS:** Endoscopic ultrasound

FUO: Fever of Unknown Origin **GI:** Gastro-intestinal

Pyrazinamide; Ethambutol **LFT:** Liver function tests MDR: Multi-drug resistance

MR: Magnetic Resonance Mtb: Mycobacterium Tuberculosis **NAAT:** Nucleic Acid Amplification Test **NTEP:** National TB Elimination **Programme**

Rif: Rifampicin **SOL:** Space occupying Lesion

SAAG: Serum Ascites Albumin Gradient **UGIE:** Upper gastrointestinal endoscopy

REFERENCES

- 1. National TB Elimination Programme, Central TB Division. Training Modules for Programme Managers & Medical Officers. Ministry of Health & Family Welfare, Government of India. https://tbcindia.gov.in/index1.php?lang=1&level=1&sublinkid=5465&lid=3540 Last access on 08 March, 2022.
- 2. Guidelines for programmatic management of drug resistant tuberculosis in India March 2021. National TB Elimination Programme, Central TB Division, Ministry of Health & Family Welfare, Government of India accessed at https://tbcindia.gov.in/showfile.php?lid=3590 Last access on 08 March, 2022.

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